Remarks

<u>Status of application</u>

Claims 1-40 were examined and stand rejected in view of prior art. Claims 41-59 were withdrawn pursuant to a Restriction Requirement and are now canceled. The pending claims have been amended to further clarify Applicant's invention. Reexamination and reconsideration are respectfully requested.

<u>The invention</u>

Applicant's invention comprises database system providing self-tuned parallel database recovery. The solution performs recovery operations by dynamically adapting how many recovery threads are spawned during recovery. As recovery threads are spawned to perform recovery operations, I/O (input/output) performance is measured with each recovery thread. The solution self-tunes how many threads are spawned by continuing to spawn recovery threads so long as I/O performance does not degrade beyond a preselected percentage and when I/O performance measured for a just-spawned recovery thread degrades beyond the preselected percentage, putting the just-spawned recovery thread to sleep.

<u>Prior art rejections</u>

A. Section 103: Lomet, Lahey, Klotz and Schmidt

Applicant appreciates the courtesy of a telephone interview with the Examiner on June 28, 2007 to discuss the rejection of Applicant's claims 1-40 under 35 U.S.C. 103(a) as being unpatentable over Lomet (Patent Number 6,490,594) in view of Lahey et al. ("Lahey" hereinafter) (Patent Number 7,028,303), further in view of Klotz et al. ("Klotz" hereinafter) (Publication Number 2004/0015762) and further in view of Schmidt et al. ("Schmidt" hereinafter) "Alleviating Priority Inversion and Non-Determinism in Real-time CORBA ORB Core Architectures", 4th IEEE Real-time Technology and Applications Symposium, Denver, CO, June 3-5, 1988. Based on the discussion with the Examiner, Applicant has amended its claims to further clarify the self-tuning features of Applicant's invention and distinguish it over the prior art of record.

Applicant invention provides a self-tuning database restore technique, which

tunes itself on-the-fly (i.e., during actual production use) by spawning recovery threads and measuring system performance as each recovery thread is spawned. Applicant's invention measures I/O performance after each recovery thread is spawned and uses that result as a determining factor as to whether to spawn additional threads. Moreover, when performance degrades beyond a preselected percentage, the most-recently spawned recovery thread is put to sleep (i.e., frozen). This enables Applicant's recovery solution dynamically adapt to the then-current environment so as to use a number of recovery threads appropriate to the then-current environment. Although Lahey and Schmidt describe the spawning of threads, they do not teach Applicant's approach of <u>self-tuning</u> the number of recovery threads spawned based on measuring system performance as each recovery thread is spawned as provided in Applicant's specification and amended claims.

Applicant's solution dynamically adapts to the actual demands placed on available computing resources rather than spawning a fixed number of recovery threads. As the resources available in a database system environment at any given moment are highly variable, Applicant's approach self-tunes the number of threads to use for recovery at run time, based on actual conditions being experienced when recovery operations are being performed. This self-tuning approach is not taught or suggested by the prior art references and Applicant's independent claims have been amended to highlight these "self-tuning" features of Applicant's invention. For the reasons stated above, it is believed that the claims sets forth a patentable advance over the art. In view of amendments made to the claims (as well as clarifying remarks made above), it is respectfully submitted that any rejection under Section 103 is overcome.

Any dependent claims not explicitly discussed are believed to be allowable by virtue of dependency from Applicant's independent claims, as discussed in detail above.

<u>Conclusion</u>

In view of the foregoing remarks and the amendment to the claims, it is believed that all claims are now in condition for allowance. Hence, it is respectfully requested that the application be passed to issue at an early date.

If for any reason the Examiner feels that a telephone conference would in any way expedite prosecution of the subject application, the Examiner is invited to telephone the undersigned at 925 465 0361.

Respectfully submitted,

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